MCKV Institute of Engineering

243 G. T. Road (N), Liluah, Howrah – 711204

Subject: **Object Oriented Programming Lab** Code:**PC-CS592**
Stream: CSE Credit: 1.5

Assignment: - 06/*Concept of Array*

A. Write a java program to find out the largest and smallest element from a 1D and 2D array.

B. Write a java program to store 6 sorted (ascending order) elements in an array P, and 4 sorted (ascending order) elements in an array Q and produce a third array R (without any sorting technique) , containing all the elements of array P and Q in sorted order. Display the resultant array.

C. Write a menu driven java program to sort a list on n numbers using the following sorting techniques:
(a)Bubble Sort. (b) Selection sort. (c) Insertion Sort.

D. Write a menu driven java program to search an element from list on n numbers using following searching techniques: (a) Linear Search (b) Binary Search (Non recursive)

Home Assignment

E. Write a menu driven java program to implement a stack operation (Push, Pop, and Display) using array.

F. Write a menu driven java program to implement a Linear Queue using array.

G. Write a menu driven java program to implement a Circular Queue using array.

H. Write a java program to declare a square matrix A [ ][ ] of order (M X M) where M must be greater than 3 and less than 10. Allow the user to input positive integers into this matrix. Perform the following task on the matrix. Sort the non-boundary elements in ascending order using any standard sorting technique and rearrange them in the matrix. Calculate the sum of both diagonals. Display the original matrix, rearranged matrix, and only the diagonal elements of rearranged matrix with their sum.

INPUT M=4				OUTPUT Original Matrix				OUTPUT Rearranged Matrix				OUTPUT Rearranged Matrix
9	2	1	5	9	2	1	5	9	2	1	5	9 5
8	13	8	4	8	13	8	4	8	3	6	4	3 6
15	6	3	11	15	6	3	11	15	8	13	11	8 13
7	12	23	8	7	12	23	8	7	12	23	8	7 8
												Sum of diagonal=59

1.

2.

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Signatures of the Faculty Members Signatures of HOD (CSE)